UNPUBLISHED SURVEY & CONTROL REPORTS

FILE COPY

MISSOULA FOREST INSECT LABORATORY

May 23, 1960

INTERMOUNTAIN STATION
Central Reference File
No. 3.4151
MISSOULA, MONT.

REPORT OF EUROPEAN PINE SHOOT MOTH SURVEY - SPRING 1960

By

P. W. Orr and W. H. Klein
Pacific Northwest Forest and Range Experiment Station
Forest Service
U. S. Department of Agriculture

JOHNSON
KEITH
NELSON

SUMMARY

A survey this spring of forest tree nurseries, arboreta, and selected stands of native pine in Oregon and Washington revealed no evidence of the European pine shoot moth.

INTRODUCTION

Discovery of the European pine shoot moth in 1959 near Seattle, Wash., lead to formation of the European Pine Shoot Moth Committee of the Northwest Forest Pest Action Council. This committee immediately undertook to determine the status of the shoot moth in order to decide what control action should be taken. Surveys of ornamental nurseries were assigned to the Washington and Oregon State Departments of Agriculture. The job of checking forest tree nurseries and arboreta was assigned to the Pacific Northwest Forest and Range Experiment Station. The authors completed this assignment from April 18 to May 4, 1960.

SURVEY METHODS

According to plan,[1/] at each nursery the buds on all hard pines 2 feet to 8 feet tall were examined for symptoms of feeding by shoot moth larvae. Following this, the seed beds and transplant beds were rough-checked and detailed observations were made on sample plots at 25-foot intervals in large beds and at lesser intervals in small beds. Each nurseryman was interviewed to determine if the trees in his nursery were grown from seed or if they were imported as seedlings from eastern growers.

Native stands of young ponderosa pine were checked in the vicinity of the Forest Service nursery at Bend, Oregon. In Washington, native lodgepole pine was checked near Darrington, Lynden, Olympia, Roy, and Yelm.

Ponderosa pine plantations on the Rogue River, Wallowa-Whitman, and Wenatchee National Forests were sampled by forest personnel in a preliminary inventory of native insects causing damage that might be confused with that of the European pine shoot moth. Determinations were made by V. M. Carolin of the PNW Station.

1/ Orr, P. W. Plan for European pine shoot moth survey - 1960. Multilithed. April 15, 1960.

FINDINGS

1. No evidence of the European pine shoot moth was found.

2. Most forest tree nurseries grow pine from seed, hence do not pose a threat of shoot moth infestation. Those few which import seedlings from eastern states are potential sources of spread in the Northwest.

3. Several insects which attack buds and twigs of pine were recorded; none closely resembles the European pine shoot moth.

4. Early spring is not the best time to survey for the European pine shoot moth.

RECOMMENDATIONS

1. Nurseries which import pine stock from other regions and which supply pine for forest planting should be periodically checked.

2. Future surveys should be made either in mid-June when the bud damage is most conspicuous, or in fall when needle-damage is evident.

3. Nurserymen should be alerted to watch for evidence of shoot moth activity during cultivating, weeding, and lifting operations.

4. The inventory of native insects attacking buds and shoots of ponderosa and lodgepole pine should be continued.

NURSERIES EXAMINED DURING SURVEY FOR EUROPEAN PINE SHOOT MOTH

Nursery	Location	Pine species examined	Origin of stock
		OREGON	
Bend (U.S.F.S.)	Bend	Ponderosa	Seed
Fernhopper	Coburg	Lodgepole	Seed
		Ponderosa	Seed
		Japanese black	Seed
Sherwood	Corbett	Mugho	Seed
		Jeffrey	Seed
		Lodgepole	Seed
		Scots	Seed
Oregon Forest (O.S.B.F.)	Corvallis	Ponderosa	Seed
Elkton (O.S.B.F.)	Elkton	Scots	Seed
		Austrian black	Seed
		Lodgepole	Seed
		Ponderosa	Seed
		Mugho	Transplants from Bellingham, Wn.
Rogue Hills Tree Farm	Grants Pass	Lodgepole	Seed
Ferris Quality	Newport	Lodgepole	Seed
		Japanese black	Seed
Benedict	Portland	Mugho	Local wholesaler
		Lodgepole	Saplings (Florence, Oreg.)

NURSERIES EXAMINED DURING SURVEY FOR EUROPEAN PINE SHOOT MOTH (Cont'd.)

Nursery	Location	Pine species examined	Origin of stock
		OREGON	
Doty-Doerner	Portland	Mugho	Seed
Hoyt Arboretum	do.	Hard pines	?
Moller's	do.	Mugho	Seed
City of Portland	do.	Scots	Seed
		Mugho	Seed
		Ponderosa	Seed
Schmidt Bros.	do.	Mugho	Seedlings (Michigan)
		Lodgepole	Saplings (Florence, Oreg.)
Surface	do.	No pines	-
John B. Woods	Salem	Scots	Seed
		Lodgepole	Seed
		Maritime	Seed
		Ponderosa	Seed
Mt. Home Ranch	Springfield	Scotch	Seed
		Bishop	Seed
		Ponderosa	Seed
		Mugho	Seedlings (Michigan)

NURSERIES EXAMINED DURING SURVEY FOR EUROPEAN PINE SHOOT MOTH (Cont'd.)

Nursery	Location	Pine species examined	Origin of stock
		WASHINGTON	
Washington State	Bellingham	Mugho	Seed
		Austrian black	Seed
Wind River (U.S.F.S.)	Carson	Volunteer ponderosa	Seed
Wind River Arboretum (U.S.F.S.)		Many species hard pines	Seed
Walsh Lake [a/] (City of Seattle)	Hobart	No pines	
Capitol State Forest (W.S.D.N.R.)	Littlerock	No pines	
Col. W. B. Greeley	Nisqually	Few experimental and ornamental species	Seed
Mighty Mountain	Olympia	Scots	Seed
		Austrian black	Seed
Seattle Arboretum	Seattle	Hard pines	Seed
Mike Webster (W.S.D.N.R.)	Tumwater	Scots	Seed
		Lodgepole	Seed
		Ponderosa	Seed
		Austrian black	Seed

a/ Nursery not in operation.